December 19, 2001

Offerors:

Subject: Amendment No. 3 to Request for Proposal No. RAM-2-31235 for ALow Wind Speed Turbine Project@

The following lists questions submitted and answers provided to those questions to date:

1. Allowed Expenses: Are there limitations or restrictions on the types of expenses (e.g., raw materials, fabrication expenses, purchased hardware or equipment, etc.) which either (a) may be included in the total project budget, (b) may be billed to the Government as its share of the costs, or (c) may be counted by the subcontractor toward its cost share. Substantial expenses of these kinds will obviously be required to construct a prototype turbine.

   Answer: No restrictions.

2. Contract Start Date: For the benefit of companies trying to coordinate proposed LWT schedules with corporate commercial needs, can you provide an estimate of when LWT Prototype Development contracts can be expected to start.

   Answer: Some may start in July (only an estimate).

3. COE Methodology: Will NREL allow or negotiate deviations from the COE Analysis Methodology summarized in Attachment C of the SoW if a subcontractor can provide justification based upon experience for changes to any of the specified parameter values (e.g., fixed charge rate, discount rate, wind shear exponent, project life)?

   Answer: The purpose of the defined COE methodology is to allow NREL to evaluate all proposals on the same financial and estimating basis. For proposal evaluation purposes, you must use the proposed method. During performance of a subcontract, NREL may consider other methods of evaluation, but may also continue to use the RFP method, to assure consistency.

4. FCR: In answer to a previous question (Amendment 2), you indicated that the FCR had increased from the value used in previous RFPs because of changes in project financing. Project financing terms have generally become more favorable for wind energy in recent

years. Can you explain what appears to be a paradox?

Answer: To develop the Fixed Charge Rate (FCR) a cash flow model for a hypothetical wind farm project was developed. The FCR was then inputed from the cash flow model results, as a means of calculating an equivalent COE using a single equation. The project cash flow method was considered too complicated for proposal evaluation purposes. The COE calculation equation, using the estimated FCR,was chosen instead for its simplicity.

Project finance terms differ with different projects, developers and localities. This approach was chosen to allow us to evaluate technology improvements on a common basis.

5. WindPact: Will the currently pending WindPact studies be available before LWT proposals are due?

Answer: The WindPACT studies that have been completed have been referenced in the RFP document. Unfortunately, none of the other studies will be completed and published in time for this RFP.

6. Certification: The SoW for Technical Area 3 indicates that design and test documentation in accordance with NREL certification guidelines will be provided, but comments that "certification of the LWT Prototype is not anticipated". Why? If a contractor wishes to proceed with full certification of the LWT Prototype, can such activities be included in the LWT contract?

Answer: It is not NREL's intention to pay for commercialization activities under these prototype development subcontracts. Certification is considered a commercialization actitivity. While we have chosen to ask for certification quality documentation, the act of acquiring certification and completing certification testing is not a goal of this effort. The product of a full system subcontract (Technical Area 3) is expected to be a "Proof of Concept" turbine, not a commercial prototype.

7. Design Site: Do the "Structural Design Site" or turbulence levels used in modeling as noted in Attachment D need to be specified in the proposal or can that remain for the project work?

Answer: NREL and the selected subcontractor shall agree on the "Structural Design Site" details after award of the subcontract. NREL is performing studies of low wind speed sites on the great plains at this time to develop recommended parameters for the "Structural Design Site".

8. Technical Merit. Can you elaborate a little on the Technical Merit Criterion? Specifically, how will NREL balance technical innovation and commercial risk considerations in its evaluation? For example, under Technical Area 3 (Prototype Development), would a radically innovative turbine with very low COE potential but

very high commercial risk be considered more technically meritorious than a moderately innovative but less commercially risky turbine?

Answer: The "Technical Merit" of the proposal is based on the proposer's presentation of the technical arguments for their proposed concept. The proposer is challenged to present sound scientific rationale and support material for why their proposed concept is expected to be superior for reducing cost of energy in the low wind speed regime. The proposer's arguments must be based on well understood engineering and science principles, and supported with any necessary references to documents and data. Proposals that provide little or no technical support for the proposed concept's projected success or make unsupported assumptions and arguments will score lower. The level of innovation is not a major criteria for selection, rejection or lowering of scores.

The due date for submittal of proposals remains unchanged (01/14/02).

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